Appendix C 510(k) Summary

Applicant:	Spineology Inc. 7800 3 rd Street N., Suite 600 Saint Paul, MN 55128 651-256-8500
Contact Person:	Bryan Becker
Date Prepared:	April 1, 2011
Trade Name:	Spineology PEEK Lumbar Interbody Fusion Device
Product Classification and Code:	Class II Medical Device, Product Code MAX
Predicate Device(s):	Pivotec Lumbar Interbody Fusion Device, Captiva Spine, Inc. Capstone Spinal System, Medtronic Sofamor Danek
Device Description:	The Spineology PEEK Lumbar Interbody Fusion Device is designed for use with autograft to facilitate fusion and is intended for use with supplemental fixation systems cleared for use in the lumbar spine. The device is available in a range of lengths and heights. The device and associated instruments are provided non-sterile.
Intended Use:	The Spineology PEEK Lumbar Interbody Fusion Device is an intervertebral body fusion device indicated for intervertebral body fusion at one level or two contiguous levels in the lumbar spine from L2 to S1 in patients with degenerative disc disease (DDD) with up to Grade I spondylolisthesis at the involved level(s). DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by patient history and radiographic studies. These patients should be skeletally mature and have had six months of non-operative treatment. These devices may be implanted via an open or a minimally invasive transforaminal approach. The Spineology PEEK Lumbar Interbody Fusion Device is designed for use with autograft to facilitate fusion and is intended for use with supplemental fixation systems cleared by the FDA for use in the lumbar spine.
Summary of Technological Characteristics:	The device is shown to be substantially equivalent to the intended use, materials, configuration, and performance characteristics of the predicate products.

Testing	The Spineology PEEK Lumbar Interbody Fusion Device was tested in compliance with FDA's guidance document titled "Class II Special Controls Guidance Document: Intervertebral Body Fusion Device". Preclinical testing according to ASTM F2077 and ASTM F2267. including static compression, static compression shear, dynamic axial and shear compression, and subsidence. Expulsion was also conducted. This testing demonstrated substantially equivalent performance characteristics to the identified predicate devices.
Conclusion:	The information submitted in this premarket notification supports a determination that the Spineology PEEK Lumbar Interbody Fusion Device is substantially equivalent in technological characteristics and intended use to the predicate devices.



Food and Drug Administration 10903 New Hampshire Avenue Document Control Room –WO66-G609 Silver Spring, MD 20993-0002

JUN 1 3 2011

Spineology, Inc.
% Mr. Bryan Becker
Clinical and Regulatory Affairs Manager.
7800 Third Street N., Suite 600
St. Paul, Minnesota 55128

Re: K110933

Trade/Device Name: Spineology PEEK Lumbar Interbody Fusion Device

Regulation Number: 21 CFR 888.3080

Regulation Name: Intervertebral body fusion device

Regulatory Class: Class II Product Code: MAX Dated: May 25, 2011 Received: May 26, 2011

Dear Mr. Becker:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act

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or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Jor Mark N. Melkerson

Director

Division of Surgical, Orthopedic And Restorative Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

Appendix D Indications for Use Form

Device Name: The Spineology PEEK Lumbar Interbody Fusion Device

Indications for Use:

The Spineology PEEK Lumbar Interbody Fusion Device is an intervertebral body fusion device indicated for intervertebral body fusion at one level or two contiguous levels in the lumbar spine from L2 to S1 in patients with degenerative disc disease (DDD) with up to Grade I spondylolisthesis at the involved level(s). DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by patient history and radiographic studies. These patients should be skeletally mature and have had six months of non-operative treatment.

These devices may be implanted via an open or a minimally invasive transforaminal approach.

The Spineology PEEK Lumbar Interbody Fusion Device is designed for use with autograft to facilitate fusion and is intended for use with supplemental fixation systems cleared by the FDA for use in the lumbar spine.

Prescription Use X AND/OR Over-The-Counter Use (Part 21 CFR 801 Subpart D) (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Surgical, Orthopedic,

/and Restorative Devices

510(k) Number <u>K110933</u>